

REMARKS

Claims 1-5, 8, 13, 14 and 17 are now pending in the application. Claims 6, 7, 9-12, 15, 16 and 18 are cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

Claims 8 and 13 stand objected to for certain informalities. Applicant has amended claims 8 and 13 according to the Examiner's suggestions. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 112

Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. Claim 7 is cancelled, and thus the rejection is moot.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-5 and 7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by WO 00/06491 A1 (hereafter "Gessner"). This rejection is respectfully traversed.

Claim 1 is amended to call for an airtight treatment step of instantaneously exposing the porous layer to a high temperature with a flushing device to melt a surface of the porous layer to eliminate the air permeability of the porous insulating layer. This subject matter is supported throughout the specification as originally filed and particularly, at paragraph [0035]. Gessner does not anticipate such a method. More

particularly, Gessner does not disclose a method of instantaneously exposing the porous layer to a high temperature with a flushing device to melt a surface of the porous layer to eliminate the air permeability of the porous insulating layer. Since Gessner does not teach such a method, each and every step of the claimed method is not disclosed. As such, the claimed method is not anticipated.

Claim 1 is further amended to call for a silicon nitride insulating material. Gessner does not anticipate such a method. More particularly, Gessner does not disclose a method wherein a silicon nitride insulating material is dissolved onto a workpiece. Since Gessner does not teach such a method, each and every step of the claimed method is not disclosed. As such, the claimed method is not anticipated.

Claims 2-5 depend upon claim 1, addressed above. Claims 2-5 are not anticipated for at least the same reasons. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 00/06491 A1 (hereafter "Gessner"). This rejection is respectfully traversed.

Claim 8 depends on claim 1, addressed above. Claim 8 is neither anticipated nor obvious for at least the same reasons. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 6 and 13-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 00/06491 A1 (and U.S. equivalent of Gessner et al.) in view of You et al. (U.S. Pat. No. 6,407,009). This rejection is respectfully traversed.

Claim 6 depends on Claim 1, addressed above. Claim 6 is neither anticipated nor obvious for at least the same reasons.

Claim 13 is amended to call for melting a surface of the porous layer to eliminate the air permeability of the porous layer by instantaneously exposing the porous layer to a high temperature with a flushing device. Although Gessner fails to teach a step of melting a surface of the porous layer to eliminate the air permeability of the porous layer, the Examiner alleges that You discloses a post application step of reflowing the dielectric material by melting it to consolidate and even the surface. As such, the Examiner alleges the claimed method would have been obvious. You, however, does not teach a method wherein a flushing device is used as the heat source. At best, You states that "heating can be accomplished using resistive heaters or infrared radiation sources in the deposition chamber, in a separate oven, or on a hot plate or other type of heater known in the art" (see column 18, lines 38-42). You's teaching of resistive heaters, hot plates, and infrared radiation sources, however, fall short of the claimed flushing device.

Further, You is completely silent with respect to using its heaters to melt a surface of a porous layer to eliminate the air permeability of the porous layer. At best, You teaches reflow of an entire layer of spin-on material to consolidate and even the spin-on material, as opposed to the claimed invention which calls for melting a surface of a porous layer to eliminate the air permeability of the porous layer. In fact, You is completely silent with respect to air permeability of a porous layer. Further, since You is completely silent with respect to air permeability of a porous layer, there is no motivation to modify the method of Gessner with You's teaching of a reflow step to arrive at the

claimed method. That is, since both You and Gessner are silent with respect to melting a surface of a porous layer to eliminate the air permeability of the porous layer, Applicant respectfully asserts that there is no teaching or suggestion in either Gessner or You that would motivate one skilled in the art to develop a method wherein a surface of a porous layer is melted to eliminate the air permeability of the porous layer, as claimed. As such, the claimed method would not have been obvious.

Claim 13 is further amended to call for a silicon nitride insulating layer. Neither Gessner or You teach a method in which a solution containing a silicon nitride insulating material is disposed onto a substrate. Since, both Gessner and You are silent with respect to a silicon nitride insulating material, applicant respectfully asserts that there is no teaching or suggestion in either Gessner or You that would motivate one skilled in the art to develop a method wherein a silicon nitride insulating material is disposed onto a substrate, as claimed. As such, the claimed method would not have been obvious.

Claims 14 and 17 depend on claim 13, addressed above. Claims 14 and 17 are not obvious for at least the same reasons.

Claims 15, 16 and 18 are cancelled. As such, the rejections are rendered moot.

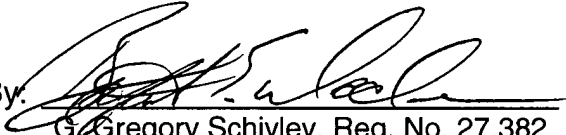
Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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